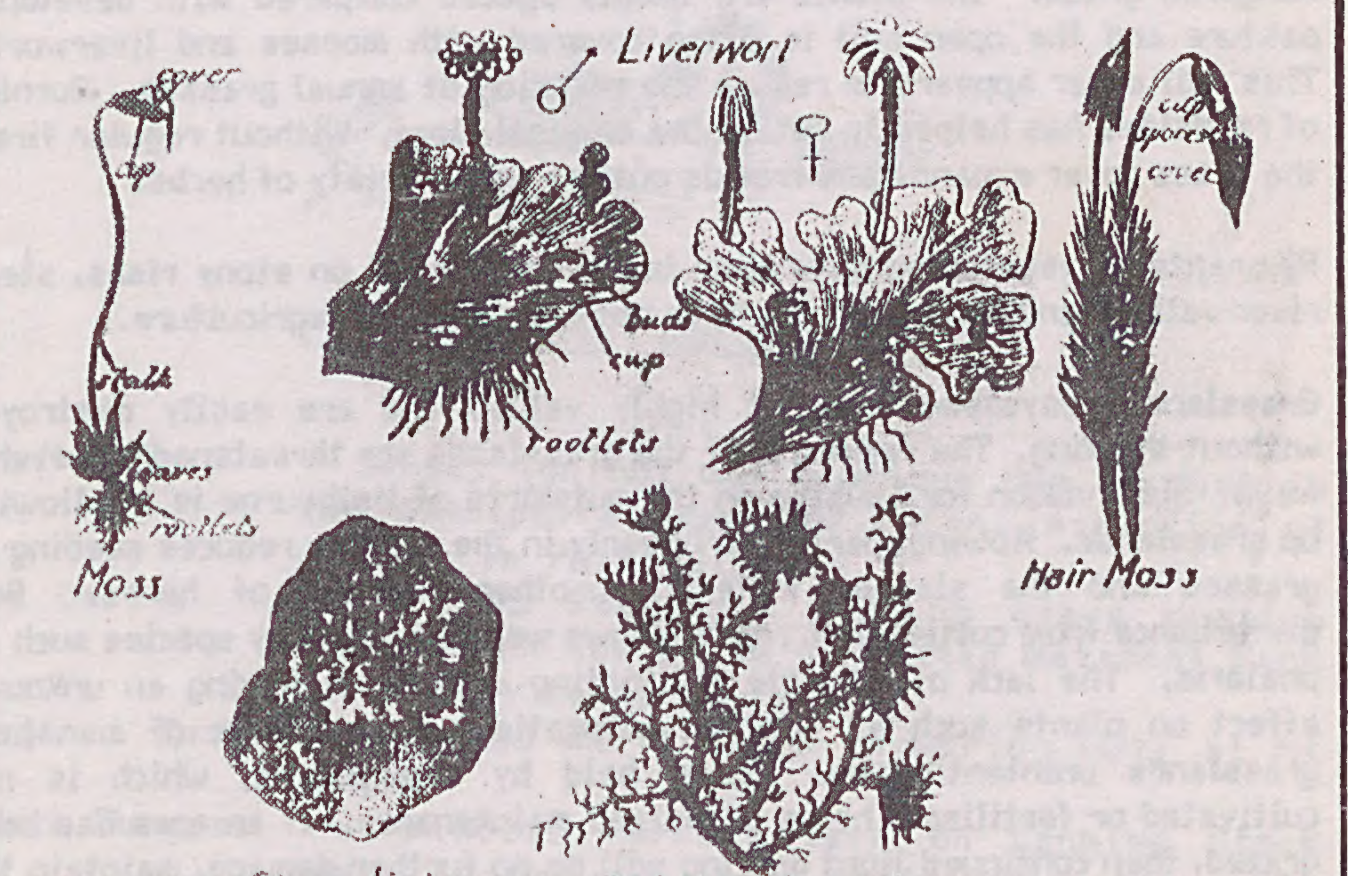
Field Naturalists Club of Ballarat *Incorporated.*

SEPTEMBER 1991

EXCURSION - NEWS SHEET

Meeting	September 6	Mr G. Cheers - Mosses and Lichens.
Meeting	October 4	B.U.C. Students - Biological Resource Management Projects.
Excursion	September 8	Dolly Creek Forest.
Excursion	September 22	Canadian Forest, Half-day Exc.
	August 30 - September 1	WVFNCA Camp-out Meeting, Hattah National Park.
	October 6	Muckleford Forest - C/maine FNC.

LICHENS, MOSSES AND LIVERWORT.



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Meetings as specified are held at the School of Mines and Industries, Lydiard Street Sth., Art Building, commencing at 7.30 p.m. EXCURSIONS, AS SPECIFIED, COMMENCE FROM CROCKERS, cnr. STURT AND ARMSTRONG STS., BALLARAT, at 9.30 a.m. for FULL DAY OUTINGS OR AT 1.30 p.m. for HALF DAY*

Vegetation of the Western Plains Speaker: Doug Frood

The plains of Western Victoria extend from Hamilton in the west to north and west edges of Melbourne. They are dominated by soils which have developed on the lava of volcanic eruptions. Most of the eruptions occurred less than 5 millions years ago. On this recent system a relatively new flora has developed. Although called the plains the area is not flat but the topography includes stony rises, volcanic cones and deep river valleys.

Little of the plains are now public lands. The soils of the area are fertile and were easily developed for agriculture so most of the vegetation has been altered by man during the past 150 years. The best remnants of the original vegetation remain on roadsides and railway lines.

The grassland vegetation consists of well spread grass tussocks with herbs, mainly daisies, growing in the spaces. Common grasses are Poa and Kangaroo grass. The plants are widely spaced compared with developed pasture and the open soil is often covered with mosses and liverworts. This soil cover appears to reduce the invasion of annual grasses. Burning of roadsides has helped to retain the original flora. Without regular fires, the grass cover expands and crowds out the wide variety of herbs.

Remnants of vegetation have been better preserved on stony rises, steep river valleys and swamps which have not been used for agriculture.

Grassland ecosystems are not highly valued and are easily destroyed without thinking. The remnants of the grasslands are threatened in several ways. Subdivision for housing on the outskirts of Melbourne is swallowing up grasslands. Mowing, particularly early in the season, reduces seeding of grasses and the slashed material smothers growth of herbs. Soil disturbance from cultivation, roads allows weed invasion by species such as phalaris. The lack of suitable pollinating animals it having an unknown effect on plants such as orchids. Sometimes the actions of man help grasslands unintentionally. Land held by speculators, which is not cultivated or fertilised, helps grassland maintenance. If an area has been grazed, then continued light grazing will do no further damage, maintain the openess of the community and allow growth of herbs.

We were shown many slides illustrating threatened species. These included Scurf Pea, Sunshine Diuris, Grevillea labellum and several daisies. An orchid has been discovered and recently described; it will be named Pterostylis volcanica.

The slides Doug showed covered a wide range of familiar and unusual plants, covering the diverse habitats of the plains. In the drier areas plants occurring in the Mallee, such as Emu Bush and Lignum, are found. On the stony rises, where cultivation is not possible, larger woody plants of wattle and Sweet Bursaria are found. Wetland areas formed on the heavy soils between stony rises. Plants found in these habitats include sedges, starwort, cane grass, water pepper and nardoo. The Red Gum woodlands have been heavily grazed and little original ground flora remains. Plants with a wide distribution are found showing different characteristics. Candles growing in stony rises are a form which has thicker leaves.

We thank Doug for sharing his botanical knowledge of the western plains with our club. The information which he is gathering should make possible the preservation and management of the declining ecosystem. JG

Field Reports: August Meeting

Pat Murphy - Sunset tonight was glorious due to dust in the atmosphere from the recent explosion of volcano in Phillipines.
Ian Castle - 1000 Kangaroos causing heavy grazing pressure on the areas of Hattah National Park outside of Kangaroo fence.
Margaret Tonkin- Pink and white heath flowering well at Mt Helen.
Helen Burgess - Princess Parrots seen on Canning Stock Route. Animals and birds were generally scarce due to drought conditions in the area.
Ken McDonnell - Nodding Greenhoods flowering at Invermay.
Elizabeth Stayt- Large flocks of Galahs foraging on the ground at Victoria Park, probably feeding on acorns.
Harvey Hooper -Twelve Cattle Egrets seen at Brown Hill

BURRAMYS - A Living Fossil

Very few mammals have the strange distinction that they were discovered first as a dry fossil bones and only later discovered alive. Such an animal is BURRAMYS parvus, which was regarded as a rare Australian fossil fo 70 years.

It was even argued over as a missing link between the families of possums and kangaroos.

This strange story began on 9 november 1894 when Robert Broom a young energetic Scottish Doctor, who was in practice in Taralga in N.S.W., went on a picnic to the attractive tourist caves at Wombeyan among the steep mountains not very far from Goulburn.

Broom was a keen naturalist and a very remarkable research worker who was destined to become the greatest of South African fossil-finders an palaeontologists; he was not only to find Burramys,, but later , in the African Karroo, the fossil mammal like reptiles which are now known to be links between true reptiles and mammals, and eventually, at Sterkfontein, in the Transvaal the skulls and bones of the ancestors of man himself.

If you go to Wombeyan today - and it is well worth the journey - you will go down a winding road into a narrow steep-walled valley at the end of which the cavea lie. Broom explored the caves, and then like many visitors he climbed up the valley side on to the ridges above the caves; there in a small depression in the hillside which marked all that is left of an ancient cave floor whose walls and roof have long since eroded away, he found some small lumps of a reddish brown limestone whose surface was speckled with white fragments of fossil bone.

After much painstaking work in his labority (Fossils are soft and the rock is hard), Broom obtained sufficient specimens to show he had discovered anew kind of marsupial about the size of a Sugar Glider but with very strange high, grooved, cheek teeth of a kind found in Australia among the Kangaroo family.

Broom chose the name Burramys (pronounced burramiss) Burra is an Aboriginal name for the district which includes the Wombeyan Caves and mys is a common suffix in Zoological names which means mouselike.

In the years that followed, controversy greww over the nature of Burramys. Some believed it to be a tiny Kangaroo and not a Possum, this was mere speculation as no more fossils were found, and apart from a few Jaws in the Australian Museum Sydney the whereabouts of the Wombeyan fossils were unknown as Broom had left Australia with them.

Many years later Dr Wells found a collection of fossils in the Anatomical Museum in the Medical Faculty of the University of Edinburgh they were the missing Wombeyan Fossils.

The Bones had been freed from the stone with more modern methods now and left no doubt that they were a possum.

Doctor D.W.L. ride M.A. D.Phil (oxon)the director of the Western Australia Museum was asked if he had any more details but he, alas, had none.

And there this story may have ended if , like all self respecting fossils, Burramys would have remained extinct.

One day in August 1966 Dr K. Shortman of the Walter and Eliza institute and his friend, Mr D. Jamieson found a small, friendly possum in a ski hut on the slopes of Mt. Hotham in the Australian Alps of Eastern Victoria. They brought it back to Melbourne with them for identification.

The research Officers of the Department of Fisheries and Game had seen nothing like the Animal And asked for an opinion from Mr Norman Wakefield, who had been working on the Victorian deposits containing Burramys, from this deposit he had been trying to isolate the skeleton of Burramys.

His problem was solved Burramys was alive and well.. Burramys lived for nine months in captivity.

L.J.

The Moolort Plains

Club Excursion 4th August 1991

There was a link between our August meeting's talk - "Vegetation of the Western Plains" (D.Frood) and the month's excursion. Both were concerned with vegetation on substrates of mainly volcanic origin. Doug Frood discussed remnant and regenerating vegetation in areas to the immediate west of Melbourne, whereas the excursion was to an area that had been heavily farmed for many generations. Indeed there was little land that had not been cultivated and or grazed in the Moolort area.

The Moolort plains are situated between the Tooloroop Creek and reservoir and Middle Creek and Cairn Curran Reservoir. Moolort itself appears to be nothing more than grain silos and a railway siding. The silos are only used to a small part of their capacity now, a testimony to the changing agricultural scene. No doubt the silos are on their way to becoming the love of some hastily established preservation group of the future. It was at the silos that we met Alison Teese our leader for the day. Alison, the dynamo of the local land care group, gave us a comprehensive review of the group's activities - shelter belt planting, the reintroduction of tree species known to be local, salvaging the diminishing buloke population, fencing off stands of remnant vegetation such as yellow box. There is a programme to combat salination with planting of recharge zones. Detailed mapping of variety soil types derived from volcanic and sedimentary substrates is being undertaken and the outcome may well influence further farming practices.

The landcare group is helped by technical staff from the appropriate government departments and scientists from tertiary institutes including Ballarat University College. The projects are substantially funded by the taxpayers.

Lunch was at the Teese property alongside the Tularoop Creek. The creek was explored with a sighting of platypus by two members, and we ventured around, and in, buildings that represented farming practices of the early years.

Energetically we climbed Mount Moolort to survey the plains and to conclude an interesting day.

K. McDonnell.

Diary Dates

September 21-22: Angair Wildflower Show at Anglesea.
October 4-6: WVFNCA Campout at Cape Bridgewater.
October 20: Maldon Steam TrainWildflower Trip; 1pm at Maldon Railway Station. Cost $4.00.
October 24: Forest St Primary School "bush-day".
September 23. Committee meeting. Clare. Dalman 55 Crescent. Wendouree.

Botanical Notes :- Sept. 1991

FAMILY IRIDACEAE

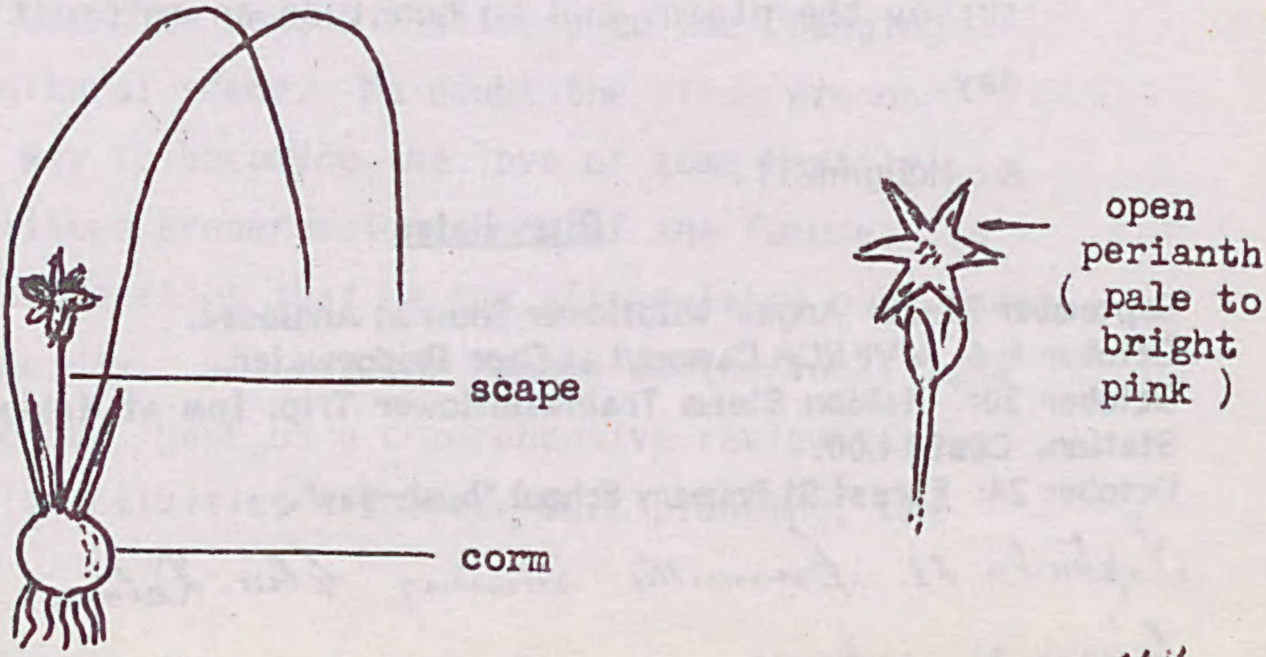
The name is derived from the Greek word, " iris", the rainbow, referring to the diverse colours of the flowers in the genus, Iris.

Many well-known garden plants belong to this family. Some examples are :- Iris, Freesia, Gladiolus, Ixia, and Crocus.

C. Beauglehole gives only one genus, Romulea, with two species in the Ballarat area. Romulus was the legendary founder of the city-state of Rome) R. rosea is a persistent weed on poor soil at the side of roads. The common or trivial name, " Onion - grass ", is a good example of a trivial name, which is botanically different from a grass and different from an onion. In the summer the rose-coloured flowers are open in the hot period of the day and closed in the evening.

Plants in this family are perennial herbs, with rhizomes or corms, leaves are parallel- veined, with open, basal sheaths. The inflorescence is terminal, usually a scape. Flowers are bisexual, epigynous. The perianth has six petaloid segments, there are 3 stamens, astyle with 3 branches The ovary is inferior and 3-celled. The fruit is a capsule.

Members of Iridaceae have an inferior ovary, and 3 anthers whereas Liliaceae, (with or without Amaryllidaceae) have 6 anthers - Liliaceae has a superior ovary and Amaryllidaceae an inferior ovary.



H.H.

Romulea rosea